Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name:	**VMV Enterprises, Inc.**
Mailing Address:	**1300 Kentucky Avenue, Paducah, Kentucky 42003**
Source Name:	**VMV Enterprises, Inc.**
Mailing Address:	**Same as above**
Source Location:	**Same as above**
KYEIS ID #:	**072-2460-0019**
AFS Plant ID #:	**21-145-00019**
SIC Code:	**3743**
Permit Number:	**F-99-013 (Revision 1)**
Original Log Number:	**F361**
Revision Log Numbers:	**G435 and G637**
Original Application Complete Date:	**December 12, 1997**
Revision Application Complete Dates:	**January 5, 2000 and April 20, 2000**
Permit Type:	**Conditional Major/Synthetic Minor Construction/Operation**
Region:	**Paducah**
County:	**McCracken**
Issuance Date:	**October 8, 1999**
Revision Date:	**May 4, 2000**
Expiration Date:	**October 8, 2004**

John E. Hornback, Director
Division for Air Quality

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be complete on December 12, 1997, the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

EP01 (VMV01) This emission point is for an Open Face Spray Booth.

VMV01 is a DeVilbis (Model# XDF #529) open face spray booth which has a roller line running through the booth
Due to the roller line, the booth has a hole in the right and left side of the booth
SUPRA V filters or filters achieving an equivalent efficiency are used to achieve a minimum of 98% particulate removal efficiency
Transfer efficiency has been assumed to be 40%
A DeVilbis HVLP gun (or equivalent) rated at 14 gal/hr is used in the booth
Construction commenced: 1969

APPLICABLE REGULATIONS:

Regulation **401 KAR 61:020**, Existing process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 61 of 401 KAR commenced before July 2, 1975.

Operating Limitations:

401 KAR 61:020

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The booth shall be operated and maintained in accordance with the manufacturer's recommendations unless other limits in this permit specifically state otherwise.
2. At all times when painting, openings in the sides of the booth must be covered by a drape curtain that completely covers the holes in the sides of the booth, except within 1 inch of the roller (no curtain is required at the front face of the booth).
3. At all times when painting, all filters shall be in place and shall be replaced when determined to be inefficient (as determined through visual inspection).
4. Painting shall not be performed while parts are in the plane of any opening in the booth.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 61:020

1. Section 3(1) limits visible emissions to less than 40% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.58 lbs/hr.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #4 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Testing Requirements:

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Monitoring Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Operating Limitations #2 and #3 shall be monitored daily before the unit is operated (when painting is performed).

Recordkeeping Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. A checklist shall be kept near the booth and used to record observations resulting from performance of all monitoring requirements. Date of operation shall also be recorded with each entry to the checklist.
2. All maintenance that affects proper operation shall be recorded and include date and reason.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of any relevant compliance test results, filter replacement, maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP02 This emission point is for Painting from Spray Cans (not in a booth).

EP02 is for painting from spray cans (not in a booth)
Transfer efficiency has been assumed to be 25%
Gravity settling has been assumed to capture 75% of the PM emissions
Construction commenced: prior to 1969

APPLICABLE REGULATIONS:

Regulation **401 KAR 61:020**, Existing process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 61 of 401 KAR commenced before July 2, 1975.

Operating Limitations:

Conditional Major Limits on VOC, Particulate Matter, and HAPs
See Section D.

Emission Limitations:

401 KAR 61:020

1. Section 3(1) limits visible emissions from process operations to less than 40% opacity.

Compliance Demonstration Method:
If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Method 9. Otherwise, compliance has been assumed.

2. Section 3(2) limits emissions of particulate matter from process operations to a maximum of 2.58 lbs/hr.

Compliance Demonstration Method:
Assumptions provided in the description and an average hourly spray can usage rate less than 8 gal/hr demonstrates compliance (8 gal/hr has not been listed as an operating limitation because the maximum spray can usage rate has been assumed to be much lower).

Conditional Major Limits on VOC, Particulate Matter, and HAPs
See Section D.

Testing Requirements:
N/A

Monitoring Requirements:
N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Recordkeeping Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #2.

1. Weekly paint usage shall be recorded (also required as part of Section D).

2. The average hourly paint usage rate shall be calculated and recorded weekly.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Reporting Requirements:

401 KAR 61:020

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only the maximum hourly average spray can usage rate for the 6 month period. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP03 (VMV117, VMV118) This emission point is for Vacublast Units.

VMV117 is a Vacu-Blast Model 300063 with a 400 SCFM Single Cyclone and a 67.5 sq. ft. filter which is cleaned by manual shaking and has an estimated efficiency of 99.5% to 1 micron when operated according to specifications and pressure drops across the unit are between 8" and 10" of water
VMV118 is a Vacu-Blast Model Mark III P Pressure Dry Honer with a 1200 CFM Single Cyclone manufactured by Abrasive Blast Systems, Inc. and a 67.5 sq. ft. filter which is cleaned by manual shaking and has an estimated efficiency of 99.5% to 1 micron when operated according to specifications and pressure drops across the unit are between 8" and 10" of water
Maximum bead usage at the maximum pressure (60 psi) is approximately 25 lbs/hr
Each unit uses 80 Mesh glass beads (or equivalent) to clean metal parts
VMV117 construction commenced: 1990
VMV118 construction commenced: 1989

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The units shall be operated with pressure drop measurements across the entire control device between 8" and 10" of water (0.29 psi and 0.36 psi).
2. The units shall be operated and maintained in accordance with manufacturer's recommendations.

Conditional Major Limits on Particulate Matter

See Section D.

Emission Limitations:

401 KAR 59:010

Limits apply to each Vacublast unit.

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 and #2 demonstrates compliance with the above emission limitations unless testing is required.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

Conditional Major Limits on Particulate Matter

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. A magnahelic gage shall be used to monitor pressure drops from the blast chamber to the fan inlet. These gages shall be installed and operational within 90 days of issuance of this permit.
2. Pressure drop across each control devices shall be monitored at least once per shift when each unit is active to verify compliance with Operating Limitation #1.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure readings shall be recorded when monitored to verify compliance with Operating Limitation #1.
2. All maintenance that affects proper operation shall be recorded and include date and reason to verify compliance with Operating Limitation #2.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance test results, a summary of pressure range (any out of compliance measurements plus maximum and minimum compliant measurements), maintenance that affects proper operation, and deviations from permit requirements for each unit. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP04 (VMV06) This emission point is for the Rotoblaster.

VMV06 was a Pangborn Blast Cleaning Systems Model # LK-4, Serial # GLK4-742 but due to old age was replaced by with a Pangborn Blast Cleaning Systems Model # GLK-7
The new unit has 1,016 sq. ft. filter which is cleaned by shaking and has an estimated efficiency of 99.9% to 5 microns when operated at 1440 SCFM and pressure drops across the filter are between 2" and 3" of water
VMV06 uses S-200 steel shot blasting beads (or equivalent) to clean metal parts
VMV06 construction commenced prior to: 1969
VMV06 was completely replaced in: 2000

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The unit shall be operated with pressure drop measurements across the control device that are between 2" and 3" of water (0.07 psi and 0.11 psi).
2. The unit shall be operated and maintained in accordance with manufacturer's recommendations.

Conditional Major Limits on Particulate Matter

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 and #2 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. A magnahelic gage shall be used to monitor pressure drops across the control device.
2. Pressure drop across the control devices shall be monitored at least once per shift when the unit is active to verify compliance with Operating Limitation #1.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure readings shall be recorded when monitored to verify compliance with Operating Limitation # 1.
2. All maintenance that affects proper operation shall be recorded and include date and reason to verify compliance with Operating Limitation #2.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance test results, a summary of pressure range (any out of compliance measurements plus maximum and minimum compliant measurements), maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP05 (VMV09) This emission point is for Blasting of locomotive parts and engines.

EP05 is a 100 ft. by 60 ft. by 30 ft. building equipped with 2 blasters: an Impco Autofill Blaster (Serial # 97-111) and another blaster for a nearly identical but separate process (the blasters are not designed to be operated together)
EP05 is controlled by 4-26,000 acfm baghouses: each is a Model 528 CT 2 manufactured by Carborundum Dust Control Systems and uses pulse air cleaning
Each baghouse has 550 bags (each bag is 5" in diameter and 132" long)
95% of the sand processed is assumed to fall on the floor of the enclosure and 5% is assumed to leave the structure through the ventilation system (the manufacturer estimates 99% control efficiency)
Construction commenced: 1969
Modified: 1999

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following are required to verify and facilitate compliance with Emission Limitations #1 and #2.

1. Building doors shall be shut during blasting.
2. The ventilation system shall be operating with fabric filters in place and providing at least 20 air changes per hour during blasting.

Compliance Demonstration Method:

Air changes = sum of volumetric flowrates produced by baghouses/volume of building

Volumetric flowrates from manufacturer specifications are acceptable as long as the baghouses have not been modified. The volume of the building will equal width times length times average height.

3. All operating baghouses shall use magnahelic gages to determine pressure drop while blasting is performed.
4. Baghouse pressure drops shall be between 1” (0.04 psi) and 4” (0.14 psi) of water during blasting. Pressure measurements more than ± 40% from 2.1” of water shall indicate an excursion from optimal operation.
5. All new excursions shall result in a maintenance inspection of the affected control device (bags should be checked for clogging or holes, etc.).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations (Continued):

Conditional Major Limits on Particulate Matter

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 4.14 lbs/hr since the process weight rate is 2,520 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #4 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on Particulate Matter

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure change readings across the filters must be made at least once per shift when blasting is being done to verify that filters are working properly as required by Operating Limitation #4.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure readings must be recorded when read to verify that filters are working properly as required by Operating Limitation #4.
2. All excursion inspections and maintenance that affects proper operation shall be recorded and include date and reason.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance test results, a summary of operating pressure range for each baghouse (any excursions or out of compliance measurements plus maximum and minimum compliant measurements), actions taken as a result of an excursion, maintenance (including bag replacement) that affects proper operation of control equipment for this emission point, and deviations from permit requirements for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP06 (VMV11) This emission point is for Arc Welding.

VMV11 is 3 General Welding Equipment wire fed welding units, 60 General Welding Equipment stick-type welding units, and 43 General Welding Equipment combination welding units
Each unit has a maximum wire usage rate of 1.1 lbs/hr (as determined through field-testing)
These welding units have no physical control equipment for pollution reduction but welding inside of any semi-enclosed building has been assumed to provide a 75% control efficiency
VMV11 construction commenced prior to: 1969

APPLICABLE REGULATIONS:

Regulation **401 KAR 61:020**, Existing process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 61 of 401 KAR commenced before July 2, 1975.

Operating Limitations:

Conditional Major Limits on Particulate Matter and HAPs
See Section D.

Emission Limitations:

401 KAR 61:020

1. Section 3(1) limits visible emissions into the open air to less than 40% opacity.

Compliance Demonstration Method:
See Monitoring Requirements.

2. Section 3(2) limits emissions of particulate matter from any building (where welding is done) to a maximum of 2.58 lbs/hr.

Compliance Demonstration Method:
If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Method 5. Otherwise, the compliance has already been demonstrated through evaluation of the emissions given the above description and the worst case AP-42 emission factor (38.4 lbs of fume/ 1000 lbs of welding wire used).

Conditional Major Limits on Particulate Matter and HAPs
See Section D.

Testing Requirements:

N/A

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Monitoring Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitation #1.

1. Monitoring (with date and time recorded) in accordance with 40 CFR 60 Appendix A, Method 9, by a representative of the permittee who is a certified visible emissions observer, shall be performed weekly for at least 4 consecutive weeks during typical operation. If any Method 9 observation results in an opacity measurement above 30%, additional weekly monitoring shall be required until monitoring for the most recent 4 consecutive weeks results in no opacity measurement above 30%.
2. Monitoring (with date and time recorded) in accordance with 40 CFR 60 Appendix A, Method 9, by a representative of the permittee who is a certified visible emissions observer, shall be performed at least once a month for at least 4 consecutive months during typical operation if any Method 9 observation results in an opacity measurement above 20%. Each additional Method 9 opacity measurement above 20% shall require additional monthly Method 9 monitoring until monitoring for the most recent 4 consecutive months results in no opacity measurement above 20%.
3. Monitoring (with date and time recorded) in accordance with 40 CFR 60 Appendix A, Method 9, by a representative of the permittee who is a certified visible emissions observer, shall be performed at least once a quarter during typical operation.

Note: The permittee shall maintain a list of all individuals that monitor visible emissions for the permittee. Individuals certified as visible emissions observers shall be noted on the list along with the date of certification.

Recordkeeping Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. All monitoring shall be recorded.
2. Any corrective actions shall be recorded.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require reporting of any relevant compliance test results (if applicable), all Method 9 results, and deviations from permit conditions at this point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements. Additionally, identify the frequency of opacity measurements pursuant to report requirement 7 from Section F.

Conditional Major Limits on Particulate Matter and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP07 (VMV13, VMV14, and VMV15) This emission point is for Heat Treatment Furnaces.

VMV15 was a Mahr Furnace with 1 diesel fuel burner used for heat treatment of handrails (the burner had a maximum fuel rating of 10 gal/hr) but the furnace was converted to use natural gas in 2000 (the natural gas burner has a maximum rated capacity of 1.5 MM Btu/hr)
VMV13 is an engine furnace with 8-1.5 MM Btu/hr burners
VMV14 is a spring furnace with 4-1.5 MM Btu/hr burners
VMV13 commenced in approximately 1927 and was made inoperable in 1999
VMV13 was converted to natural gas and made operational in: 2000
VMV14 commenced in approximately 1927 and was made inoperable in 1999
VMV14 was converted to natural gas and made operational in: 2000
VMV15 commenced construction: approximately 1927
VMV15 modified in: 2000

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following are required to verify and facilitate compliance with Emission Limitations #1 and #2.

1. Only natural gas shall be burned.
2. Proper operation and maintenance shall be practiced.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions from each furnace to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter from each furnace to a maximum of 2.34 lbs/hr.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

Testing Requirements:

N/A

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Monitoring Requirements:

N/A

Recordkeeping Requirements:

401 KAR 59:010

To demonstrate compliance with Operating Limitation #1,

1. A record of the type of fuel burned shall be maintained.

To demonstrate compliance with Operating Limitation #2,

2. A copy of the burner manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.

3. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.

4. Dates and descriptions of maintenance that affects proper operation shall be recorded.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP08 This emission point is for Indirect Heat Exchangers.

EP08 is 3 boilers, a Sellers 50HP Model 77 Commodore Boiler with a rated capacity of 2.093 MM Btu/hr, a 300HP 105E 150# Sellers Engineering Boiler with a rated capacity of 12.555 MM Btu/hr, and a Sellers 100HP 77C 150# Boiler with a rated capacity of 4.187 MM Btu/hr
Natural gas is burned to produce process heat
EP08 construction commenced: 1987

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:015**, New indirect heat exchangers, applicable to affected facilities with a capacity of 250 million BTU per hour heat input or less commenced after August 9, 1972, limits particulate and sulfur dioxide emissions.

Regulation **401 KAR 59:005**, General provisions, provides for the establishment of monitoring requirements, performance testing requirements, and other general provisions as related to new sources effective December 1, 1982.

Operating Limitations:

401 KAR 59:015

To demonstrate continuous compliance with Emission Limits #1 - #3, the following shall apply.

1. Only natural gas shall be burned.
2. Proper operation and maintenance shall be practiced.

Conditional Major Limits on Particulate Matter, VOC, CO, and NO_x
See Section D.

Emission Limitations:

401 KAR 59:015

The following emission limitations will apply unless the permittee petitions the Cabinet for alternative emission limitations according to Section 3(3) of the above listed regulation.

1. Section 4(1)(c) limits emissions of **particulate matter** to no more than 0.4824 lbs/MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (18.835) into the following equation.

$$PM = 0.9634 \times (\text{total heat input capacity in MM Btu/hr})^{-0.2356}$$

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

401 KAR 59:015

2. Section 4(2) limits visible emissions to a maximum of **20% opacity** except for emissions occurring during cleaning of the fire box, blowing of soot, and building of a new fire.

a. While cleaning of the fire box or blowing of soot is being done, visible emissions are limited to a maximum of 40% opacity for not more than 6 consecutive minutes in any 60 consecutive minutes.

b. There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded.

3. Section 5(1)(c) limits emissions of any gas which contains **sulfur dioxide** to no more than 2.313 lbs/MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (18.835) into the following equation.

$$SO_2 = 7.7223 \times (\text{total heat input capacity in MM Btu/hr})^{-0.4106}$$

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9, 5, and 6, respectively.

If operated in accordance with Operating Limitations #1 and #2, compliance has already been demonstrated.

Conditional Major Limits on Particulate Matter, VOC, CO, and NO_x

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

N/A

Recordkeeping Requirements:

401 KAR 59:015

To demonstrate compliance with Operating Limitation #1,

1. A record of the type of fuel burned shall be maintained.

To demonstrate compliance with Operating Limitation #2,

2. A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.

3. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.

4. Dates and descriptions of maintenance that affects proper operation shall be recorded.

Conditional Major Limits on Particulate Matter, VOC, CO, and NO_x

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

401 KAR 59:005

Section 3(1)(d) requires written notification of any physical or operational change which may increase the emission rate of any air pollutant to which a standard applies to be furnished to the Cabinet. This notice shall be postmarked 60 days before the change is commenced or as soon as practicable. The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.

Conditional Major Limits on Particulate Matter, VOC, CO, and NO_x

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP09 (VMV08 and VMV126) This emission point is for The Locomotive Spray Booths.

EP09 is 2 large booths used for painting train locomotives
Each booth in EP09 uses 2 HVLP guns (or equivalent) rated at 14 gal/hr each
Each booth is manufactured by JBI and uses A.J. Draille filters or equivalent
VMV126 utilizes a 26,000 scfm JBI Model SDT-1-4-WPDT-S Filter Unit
In 2000, VMV08 was retrofit to also utilize a 26,000 scfm JBI Filter Unit
The JBI Filter Units are assumed to remove 99.9% of the particulate emissions
Transfer efficiency has been assumed to be 65%
VMV08 construction commenced: 1973 Retrofit: 2000 or Early 2001
VMV126 construction commenced: 2000

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

See **Section H (Alternate Operating Scenarios)** for Applicable Regulations on VMV08 prior to retrofit.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The filter units shall be maintained and operated in accordance with the manufacturer's recommendations unless otherwise required in this permit.
2. The filter units shall be operated so that pressure drop across the control is in the range specified by the manufacturer.

See **Section H (Alternate Operating Scenarios)** for Operating Limitations on VMV08 prior to retrofit.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions from each booth to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter from each booth to a maximum of 2.34 lbs/hr.

See **Section H (Alternate Operating Scenarios)** for Emission Limitations on VMV08 prior to retrofit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 and #2 demonstrates compliance with the above emission limitations unless testing is required.

See **Section H (Alternate Operating Scenarios)** for Emission Limitations Compliance Demonstration Method on VMV08 prior to retrofit.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. The pressure drop across each filter unit control device shall be monitored at least once every 8 hours (when any painting is done in the respective booths during the period) to verify compliance with Operating Limitation #2.

See **Section H (Alternate Operating Scenarios)** for Monitoring Requirements on VMV08 prior to retrofit.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Observations resulting from Monitoring Requirement #1 shall be recorded in a log and indicate the date and 8 hour period (1^{st}, 2^{nd}, or 3^{rd} shift) of the observations.
2. All maintenance and corrective actions taken to comply with Operating Limitations #1 and #2 shall be recorded.
3. All deviations from Operating Limitations #1 and #2 shall be recorded.
4. (Condition removed from previous version)
5. (Condition removed from previous version)
6. All relevant compliance testing results shall be recorded and maintained by the permittee.

See **Section H (Alternate Operating Scenarios)** for Recordkeeping Requirements on VMV08 prior to retrofit.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance testing results and any permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

See **Section H (Alternate Operating Scenarios)** for Reporting Requirements on VMV08 prior to retrofit.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP10 This emission point is for Direct Heat Units.

EP10 consists of 14-13 MM Btu/hr maximum heat input Rapid (Model# 3089) natural gas heaters, 1-4.25 MM Btu/hr maximum heat input Rapid (Model# 3049) natural gas heater, 2-1.123 MM Btu/hr rated natural gas makeup air heaters manufactured by Rupp Industries (Model CFA-20), 2-0.68 MM Btu/hr maximum heat input Rapid (Model# 2000) natural gas heaters, 2-0.228 MM Btu/hr maximum heat input Hastings Ind. (Model# GL300XE) natural gas heaters, 2-0.2 MM Btu/hr maximum heat input Modine (Model# PA200AB) natural gas heaters, 3-0.152 MM Btu/hr maximum heat input Modine (Model# PA200AB) natural gas heaters, 4-0.12 MM Btu/hr maximum heat input Central Environmental Systems (Model# TUS120B960A0) natural gas heaters, 1 natural gas heater estimated to have maximum heat input of 0.12 MM Btu/hr, 1-0.1155 MM Btu/hr maximum heat input Empire (Model# VH-1150-FSP) natural gas heater, 4-0.075 MM Btu/hr maximum heat input Modine (3 are Model# PA75AB and 1 is Model# PAE755C) natural gas heaters, 1 natural gas heater estimated to have maximum heat input of 0.075 MM Btu/hr, and 2-0.0333 MM Btu/hr maximum heat input Bonanza (Model# B-1000) natural gas heater

APPLICABLE REGULATIONS:

See Section D for **conditional major limits on Particulate Matter, VOC, CO, and NO_x** emissions. No regulations apply.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP11 This emission point is for Fugitive Emissions from the Haul Roads.

APPLICABLE REGULATION:

Regulation **401 KAR 63:010**, Fugitive emissions, applies to each road which may emit fugitive emissions.

Operating Limitations:

401 KAR 63:010, Section 3(1)

1. Dust from use of the roads shall be controlled by wet suppression or application of a durable surface such as asphalt with routine cleaning.

Emission Limitations:

401 KAR 63:010, Section 3(2)

1. The permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property on which the emissions originate.

Testing Requirements:

N/A

Monitoring Requirements:

N/A

Recordkeeping Requirements:

401 KAR 63:010

The following is required as part of compliance demonstration for Operating Limitation #1 and Emission Limitation #1.

1. A daily log of wet suppression application and any routine cleaning shall be kept.

Reporting Requirements:

As part of compliance demonstration for Emission Limitation #1 and Operating Limitation #1, reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP13 (VMV18-VMV20, VMV34, VMV37-VMV41, VMV43, VMV51-VMV56, VMV121)
This emission point is for Degreasers.

All units except VMV121 are custom built dip tank style cold cleaning degreasers with tank covers
VMV121 is a Magnus spray sink style degreaser with a tank cover
VMV18, VMV34, VMV39, VMV43, VMV51, VMV52, VMV55, and VMV121 use pumped agitation
VMV121 has a sprayer rated for use at 50 psi
All units except VMV121 were constructed: 1991
VMV121 constructed commenced: prior to 1980

APPLICABLE REGULATIONS:

See Section D for **conditional major limits on VOC** emissions. No regulations apply.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP17 (VMV44 and VMV45) This emission point is for Dip Coating of Metal Parts.

VMV44 is a Devine Dwg. 241-H-40 dip tank used for vacuum pressure impregnation of locomotive parts
VMV45 is a 800 gallon dip tank used for sealing traction motors and a 175 gallon dip tank used for dipping small rotating equipment
This emission point also has 5 ovens that are used to cure the coatings applied in the dip tanks The ovens are used as needed and items from any tank may be cured in any oven, provided the size is appropriate
3 of the ovens are heated by combustion of natural gas (1 with a 700,000 Btu/hr maximum heat input burner and 2 with a 425,000 Btu/hr maximum heat input burner), 1 is heated by electricity, and 1 is heated by steam
VMV44 construction commenced: 1982
VMV45 construction commenced: 1972

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

1. Only natural gas shall be burned.
2. Proper maintenance shall be practiced.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

Emission Limitations:

401 KAR 59:010

Limits apply to each oven directly using combustion for heat.

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:
If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Particulate emissions result only from the combustion of natural gas. If operated in accordance with Operating Limitations #1 and #2, compliance has already been demonstrated.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements:

N/A

Monitoring Requirements:

N/A

Recordkeeping Requirements:

401 KAR 59:010

To demonstrate compliance with Operating Limit #1,

1. A record of the type of fuel burned shall be maintained.

To demonstrate compliance with Operating Limit #2,

2. A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel,

3. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.

4. Dates and descriptions of maintenance that affects proper operation shall be recorded.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP18 (VMV122) This emission point is for Testing of Locomotive Engines.

VMV122 is 2 test cells, each with 2-3 ft diameter, 70 ft stacks
Test cell A is west of test cell B
Test cell A construction commenced: prior to 1975
Test cell B construction commenced: after July 2, 1975

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations is applicable to test cell A.

Regulation **401 KAR 61:020**, Existing process operations is applicable to test cell B.

Operating Limitations:

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions from test cell B to less than 20% opacity.

401 KAR 61:020

2. Section 3(1) limits visible emissions from test cell A to less than 40% opacity.

Compliance Demonstration Method for Emission Limitations #1 and #2:
See Monitoring Requirements.

401 KAR 59:010

3. Section 3(2) limits emissions of particulate matter from test cell B to a maximum of 2.34 lbs/hr.

401 KAR 61:020

4. Section 3(2) limits emissions of particulate matter from test cell A to a maximum of 2.58 lbs/hr.

Compliance Demonstration Method for Emission Limitations #3 and #4:
If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.

Given a maximum diesel usage of 2,500 gallons per day, compliance is demonstrated (unless testing is deemed necessary).

If testing is carried out in accordance with the Division's policy manual (incorporated by reference in 401 KAR 50:016) and 401 KAR 50:045, Section 5, the emission factor resulting from the test shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements:

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

Monitoring Requirements:

The following is required as part of compliance demonstration for Emission Limitation #1.

1. An observer shall qualitatively observe the visible emissions daily (if engine testing is being done) during full engine load operation. The observer shall note if no visible emissions, normal visible emissions, or above normal visible emissions are occurring. The date and time of the observations shall also be noted.
2. Monitoring in accordance with 40 CFR 60 Appendix A, Method 9, by a representative of the permittee who is a certified visible emissions observer, shall be performed within 60 days of the issuance date of this permit and once a calendar quarter thereafter during full engine load operation. The date and time of all Method 9 monitoring shall also be noted. Additionally, if a daily observation notes an above normal visible emission, Method 9 monitoring shall be performed under the same operating conditions of the daily observation, as soon as practical.

Note: The permittee shall maintain a list of all individuals that monitor visible emissions for the permittee. Individuals certified as visible emissions observers shall be noted on the list along with the date of certification.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 through #4.

1. All monitoring shall be recorded.
2. The total gallons of diesel used in engine testing for each test cell each week and the average daily diesel usage for each test cell shall be recorded.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require reporting of any test results (if applicable), all Method 9 monitoring, the average daily diesel usage (in gallons) for each engine test cell, and deviations from permit conditions at this point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements. Additionally, identify the frequency of opacity measurements pursuant to report requirement 7 from Section F.

Conditional Major Limits on Particulate Matter, VOC, CO, NO_x, and HAPs
See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP19 (VMV124 and VMV125) This emission point is for Rod and Head Spraying.

VMV124 and VMV125 each have air guns that have a maximum throughput of 11.25 gal/hr (as determined through field-testing)
Exhaust from the spraying passes through a filter (test results indicate that the SUPRA V filters have a 98% particulate removal efficiency but filters with an equivalent efficiency may be used)
Transfer efficiency has been assumed to be 25%
VMV124 and VMV125 construction commenced: prior to 1980

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The filters shall be installed and operational within 90 days of issuance of this permit. The filters shall also be maintained and operated in accordance with the manufacturer's recommendations unless otherwise required in this permit.
2. At all times when painting, all filters shall be in place and shall be replaced when determined to be inefficient (as determined through visual inspection).

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

Limits apply to each affected facility.

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

Given the description provided for this emission point, compliance with Operating Limitations #1 and #2 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Operating Limitation #2 shall be monitored daily (for each process) if operated.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Date and results of filter inspections shall be recorded when monitored.

2. All maintenance that affects proper operation shall be recorded and include date and reason.

3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of any relevant compliance test results, filter replacement, maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP20 (VMV105) This emission point is for Painting of engines and other parts.

EP20 is a 30 ft deep open face spray paint booth with a 21,700 scfm ventilation system manufactured by Binks Manufacturing
The booth utilizes AF 29-359 double pleated cardboard filters (or equivalent) which the manufacturer reports to be 97% efficient at removing particulates when the air velocity through the filter is 150 ft/min (other equivalent roll or blanket-type filters may also be used)
Transfer efficiency has been assumed to be 65%
Either, a DeVilbis HVLP gun (or equivalent) rated at 14 gal/hr, or a Graco air-assist spray gun (or equivalent) rated at 7.97 gal/hr may be used in the booth
Construction projected: 1999

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The booth shall be operated and maintained in accordance with the manufacturer's recommendations unless other limits in this permit specifically state otherwise.
2. Painting shall only be performed while the target is completely inside the booth and the painting shall be directed into the booth.
3. At all times when painting, all filters shall be in place and shall be replaced when determined to be inefficient (as determined through visual inspection).

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #3 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Testing Requirements:

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Operating Limitation #3 shall be monitored daily before the unit is operated (when painting is performed).

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Date and results of filter inspections shall be recorded when monitored.
2. All maintenance that affects proper operation shall be recorded and include date and reason.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of any relevant compliance test results, filter replacement, maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP21 (PAU 1-4) This emission point is for Painting of locomotive insides and other painting outside of permanent booths.

This emission point can change its description from job-to-job
EP21 will always utilize an Abatement Technologies, HEPA-Aire H 2000HP, ventilation device (4 of these were part of the application)
The HEPA-Aire H 2000HP is designed to pull up to 2,000 scfm through a 3-stage filter which has a cross section area of 4 ft^2
The filter has been assumed to be 99.9% efficient at removing particulates due to the 3-stage design and manufacturer data
Transfer efficiency has been assumed to be 65%
EP21 will also always utilize one DeVilbis HVLP gun (or equivalent) rated at 14 gal/hr
Construction projected: early 1999

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. Painting shall only be done after the volume of the enclosed painting area has been determined and the painting area is ventilated at a rate of at least 20 air changes per hour through the use of 1 or more of the ventilation devices.

Compliance Demonstration Method:

Air changes = sum of volumetric flowrates produced by the ventilation device(s)/volume of the enclosure

Volumetric flowrates from manufacturer specifications are acceptable as long as the ventilation devices have not been modified. The volume of the enclosure can be directly measured using any scientifically sound method or may be estimated as a volume equal to the maximum length times the maximum width times the maximum height of the enclosure.

2. Filters shall be in place and shall be replaced when determined to be inefficient (as determined through visual inspection).

3. The ventilation system(s) shall be operated and maintained in accordance with the manufacturer's recommendations.

4. Painting shall only be done in areas that have been enclosed (allowing for make-up air and exhaust ventilation).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations (Continued):

5. Make-up air openings or ports shall be effectively obstructed to PM emissions.

Compliance Demonstration Method:

The permittee can obstruct make-up air ports through several methods. For example, positioning make-up air ports more than 20 feet away from any painting will effectively obstruct PM emissions. Using filters at the make-up air ports would effectively obstruct PM emissions. Using trap doors that open into another compartment would effectively obstruct PM emissions. Driving air into the enclosure through the make-up air ports would also effectively obstruct PM emissions. Other equally effective obstructions may be used but using unobstructed opening less than 20 feet away from any painting will require a compliance demonstration (testing) to establish that the configuration is effectively obstructing PM emissions and Emission Limitations #1 and #2 are not being violated.

6. Painting shall only be done in areas that are adequately ventilated (adequacy shall be determined through use of smoke tube observations).

7. Smoke tube observations shall be made for each enclosure where painting is to be performed unless specifically exempted in this condition. Observations shall be made at all points where particulate escape might be likely (effectively obstructed make-up air ports would not be a likely point for particulate escape). If the enclosure is reconfigured, ventilation adequacy shall be reevaluated (temporary alteration of the enclosure that does not alter the demonstrated design of the enclosure is not a reconfiguration). With the following exception: if the same enclosure design is utilized on all locomotives in each locomotive painting batch and smoke tube observations for the first locomotive of the batch establish that the enclosure design is effective, all other locomotives in the batch shall be exempted from smoke tube testing.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.

2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Compliance with Operating Limitations #1 - #7 demonstrates compliance unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements:

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Operating Limitation #2 shall be monitored daily before operation (when painting is performed).
2. The method for demonstrating compliance with Operating Limitation #5 shall be described and noted for each enclosure. Describe and note any alterations that result in a net change to the enclosure.
3. Smoke tube observations described in Operating Limitation #7 shall be monitored each time smoke tube observations are performed.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. A checklist shall be used to record the volume and ventilation rate for each painting enclosure (including the enclosures exempted from smoke tube testing). Observations resulting from performance of all monitoring requirements shall also be recorded on the checklist (if a monitoring requirement has been exempted, the initial reference monitoring may be noted for compliance demonstration and referred to). Smoke tube observations shall include a brief description of the extent which the observations were made (for example: observed smoke when released near entry opening, exhaust system connection point, along ground, and along taped closures). The date and time of completion for the above measurements and observations shall be recorded with the checklist entries.
2. All maintenance that affects proper operation shall be recorded and include date and reason.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of smoke tube observations, how each make-up air opening was obstructed from PM emissions, filter replacement, maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP24 (VMV50) This emission point is for Blasting of locomotive parts.

EP24 is a 300 ft. by 40 ft. building used for paint preparation equipped with blasters and a baghouse
The baghouse was manufactured by Carborundum Dust Control Systems and was designed to handle 76,000 cfm
The baghouse is a Model 528 CT 2 using 550 bags (each bag is 5" in diameter and 132" long) and pulse air cleaning
95% of the sand or soda processed is assumed to fall on the floor of the enclosure and 5% is assumed to leave the structure through the ventilation system (the manufacturer estimates 99% control efficiency)
Construction commenced: 1989

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following are required to verify and facilitate compliance with Emission Limitations #1 and #2.

1. Building doors shall be shut during blasting.
2. The ventilation system shall be operating with fabric filters in place and providing at least 20 air changes per hour during blasting.

Compliance Demonstration Method:

Air changes = sum of volumetric flowrates produced by baghouses/volume of building

Volumetric flowrates from manufacturer specifications are acceptable as long as the baghouses have not been modified. The volume of the building will equal width times length times average height.

3. The baghouse shall use a magnahelic gage to determine pressure drop while blasting is performed.
4. Baghouse pressure drops shall be between 6” (0.22 psia) and 10” (0.36 psia) of water during blasting. Pressure measurements more than ± 20% from 8” of water shall indicate an excursion from optimal operation.
5. All new excursions shall result in a maintenance inspection of the control device (bags should be checked for clogging or holes, etc.).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Operating Limitations (Continued):

Conditional Major Limits on Particulate Matter

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.68 lbs/hr since the process weight rate is 0.625 tons/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #4 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on Particulate Matter

See Section D.

Testing Requirements:

N/A

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure change readings across the filters must be made at least once per shift when blasting is being done to verify that filters are working properly as required by Operating Limitation #4.

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Pressure readings must be recorded when read to verify that filters are working properly as required by Operating Limitation #4.
2. All excursion inspections and maintenance that affects proper operation shall be recorded and include date and reason.
3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance test results, a summary of operating pressure range for the baghouse (any excursions and out of compliance measurements plus maximum and minimum compliant measurements), actions taken as a result of an excursion, maintenance (including bag replacement) that affects proper operation of control equipment for this emission point, and deviations from permit requirements for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on Particulate Matter

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

EP25 (SG-1) This emission point is for Painting of locomotive parts.

EP25 is a paint booth with a 32,500 scfm Airgaurd ventilation system at both sides of the north end of the booth (a total of 2 systems)
Filters have been assumed to capture 99% of particulate emissions
The booth has 2 Graco air-assist spray guns (or equivalent)
Each gun is designed to operate at a maximum flow rate of 7.97 gal/hr
Transfer efficiency has been assumed to be 50%
Construction commenced: 1995

APPLICABLE REGULATIONS:

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

Operating Limitations:

401 KAR 59:010

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The booth shall be operated and maintained in accordance with the manufacturer's recommendations unless other limits in this permit specifically state otherwise.
2. All booth doors shall be closed while painting.
3. At all times when painting, all filters shall be in place and shall be replaced when determined to be inefficient (as determined through visual inspection).

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 59:010

1. Section 3(1) limits visible emissions to less than 20% opacity.
2. Section 3(2) limits emissions of particulate matter to a maximum of 2.34 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #3 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Testing Requirements:

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Monitoring Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Operating Limitation #3 shall be monitored daily before the unit is operated (when painting is performed).

Recordkeeping Requirements:

401 KAR 59:010

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Date and results of filter inspections shall be recorded when monitored.

2. All maintenance that affects proper operation shall be recorded and include date and reason.

3. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only a summary of any relevant compliance test results, filter replacement, maintenance that affects proper operation, and deviations from permit requirements. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant, the permittee must properly maintain and operate the units (manufacturer and supplier recommendations should be used to define proper maintenance and operation).

	Description	Generally Applicable Regulation
1.	10-Enclosed Washers 1 rated to hold 12,000 gallons and used for trucks 1 rated to hold 5,600 gallons and used for A-frames 1 rated to hold 3,000 gallons and used for Aluminum 1 rated to hold 1,950 gallons and labeled Typhoon 1 rated to hold 1,500 gallons and labeled Typhoon 1 rated to hold 1,200 gallons and labeled Typhoon 1 rated to hold 1,780 gallons and used for gear cases 1 rated to hold 1,100 gallons and used for wheel washing 1 rated to hold 400 gallons and manufactured by Mart 1 rated to hold 130 gallons and used for governors	401 KAR 59:010
2.	2-Oil/Water Separators 1 rated at 25 gallons per minute 1 rated at 2,500 gallons per minute	None
3.	17-Tanks for Storage of Petroleum Products 1-10,000 Gallon Oil Tank (installed in 1955) 2-4,000 Gallon Oil Tanks (installed in 1960) 2-1,000 Gallon Oil Tanks (installed prior to 1970) 1-1,000 Gallon Oil Tank (installed in 1998) 1-500 Gallon Oil Tank (installed in 1996) 1-2,000 Gallon Oil Tank (installed in 1997) 1-4,000 Gallon Oil and Diesel Tank (installed in 1998) 3-10,000 Gallon Diesel Tanks (installed in 1993) 1-4,000 Gallon Diesel Tank (installed in 1960) 1-3,000 Gallon Diesel Tank (installed in 1993) 1-1,000 Gallon Diesel Tank (installed in 1993) 1-1,000 Gallon Gasoline Tank (installed in 1993) 1-1,000 Gallon Kerosene Tank (installed in 1993)	None
4.	7-Tanks for Storage of Liquids Containing NaOH 2-10,000 Gallon Storage Tanks (installed in 1994) 1-10,000 Gallon Storage Tank (installed in 1997) 1-9,000 Gallon Storage Tank (installed in 1997) 1-2,500 Gallon Storage Tank (installed in 1997) 1-2,500 Gallon Storage Tank (installed in 1998) 1-1,500 Gallon Storage Tank (installed in 1997)	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Conditional Major Limits and **PSD Synthetic Minor Limits** have voluntarily been accepted to avoid major source status and applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, requirements. Exceedance of the major source emission levels, as defined in 401 KAR 50:035 and 401 KAR 51:017, respectively, will trigger additional requirements and regulations.

Emission Limitations:

Plantwide NO_x conditional major and synthetic minor limitation

1. For any 52 consecutive week period, plantwide NO_x emissions shall be less than or equal to 97 tons as demonstrated on a weekly basis.

Plantwide CO conditional major limitation

2. For any 52 consecutive week period, plantwide CO emissions shall be less than or equal to 97 tons as demonstrated on a weekly basis.

Plantwide particulate matter conditional major limitation

3. For any 52 consecutive week period, plantwide particulate matter emissions shall be less than or equal to 97 tons as demonstrated on a weekly basis.

Plantwide VOC conditional major and synthetic minor limitation

4. For any 52 consecutive week period, plantwide VOC emissions shall be less than or equal to 97 tons as demonstrated on a weekly basis.

Plantwide individual hazardous air pollutant (HAP) conditional major limitation

5. For any 52 consecutive week period, plantwide individual HAP emissions shall be less than or equal to 9.7 tons as demonstrated on a weekly basis.

Plantwide combined hazardous air pollutant (HAP) conditional major limitation

6. For any 52 consecutive week period, plantwide combined HAP emissions shall be less than or equal to 24.25 tons as demonstrated on a weekly basis.

Compliance Demonstration Method:

Compliance can be demonstrated through use of division approved control efficiency and transfer efficiency estimates, emission factors provided as EPA guidance, EPA recognized estimating programs such as TANKS, testing results, verifiable recovery (excluding petroleum and degreaser), and by assuming that all other untested non-combustion materials used are emitted unless recovered.

Plantwide emissions can be determined by summing all activities that release the pollutant. For **NO_x**

NO_x emitted (lbs) = S [natural gas combustion NO_x] + S [testing of locomotive engines NO_x] + S [any other NO_x emissions except those exempted under 401 KAR 50:035]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

Substitution into the NO_x equation will result in the following equation.

NO_x emitted (lbs) = ft^3 of natural gas burned by the permittee
x natural gas NO_x emission factor + S [gallons of diesel used in engine testing
x % of test time at % loading / 100 x NO_x emission factor for % loading]
+ S [any other NO_x emissions except those exempted under 401 KAR 50:035]

All emission factors may be tested (in accordance with Division for Air Quality policy) to obtain values. Absent test results, the following emission factors shall be used.

Natural gas NO_x emission factor from AP-42 = 100 lbs of $NO_x/10^6$ ft^3 of natural gas fired

Engine test NO_x emission factor for diesel

from APTI Course T-002	=	2.34 lbs of NO_x/gal of diesel at 100% load
NO_x Control Technology	=	1.50 lbs of NO_x/gal of diesel at 80% load
	=	0.79 lbs of NO_x/gal of diesel at 50% load
	=	0.26 lbs of NO_x/gal of diesel at 20% load
	=	0.00 lbs of NO_x/gal of diesel at 0% load

Use straight-line interpolation between loading points and straight-line extrapolation above 100% using the 80% load and 100% load points to define the straight line.

645 blower engine NO_x emission factor	=	1.65 lbs of NO_x/gal of diesel
645 turbo engine NO_x emission factor	=	1.71 lbs of NO_x/gal of diesel
710 turbo engine NO_x emission factor	=	1.71 lbs of NO_x/gal of diesel

For **CO**

CO emitted (lbs) = S [natural gas combustion CO] + S [testing of locomotive engines CO]
+ S [any other CO emissions except those exempted under 401 KAR 50:035]

Substitution into the CO equation will result in the following equation.

CO emitted (lbs) = ft^3 of natural gas burned by the permittee
x natural gas CO emission factor + gallons of diesel used in engine testing
x CO emission factor for engine
+ S [any other CO emissions except those exempted under 401 KAR 50:035]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

All emission factors may be tested (in accordance with Division for Air Quality policy) to obtain values. Absent test results, the following emission factors shall be used.

Natural gas CO emission factor from AP-42 = 84 lbs of CO/10^6 ft^3 of natural gas fired

Engine test CO emission factor for diesel from Exhaust Emission Factors for Nonroad Engine Modeling – Compression-Ignition = 0.33 lbs of CO/gal of diesel

For **particulate matter (PM)**

PM emitted (lbs) = S [EP01 painting PM] + S [EP02 spray can painting PM] + S [EP03 PM] + S [EP04 PM] + S [EP05 and EP24 PM] + S [welding PM] + S [testing of locomotive engines PM] + S [natural gas combustion PM] + S [EP09 painting PM] + S [EP19 spraying PM] + S [EP20 painting PM] + S [EP21 painting PM] + S [EP25 painting PM] – S [any painting PM counted toward emissions but verifiably recovered] + S [any other PM emissions except those exempted under 401 KAR 50:035]

Substitution into the PM equation will result in the following equation.

PM emitted (lbs) = lbs of solids used in painting at EP01 x transfer inefficiency at EP01 x (1 – PM control efficiency at EP01) + lbs of solids used during painting from spray cans x transfer inefficiency for painting from spray cans x (1 – PM control efficiency for spray can painting) + lbs of waste captured at EP03 by the control device x inside building gravity settling x [(1 – PM control efficiency at EP03)/ PM control efficiency at EP03] + lbs of waste captured at EP04 by the control device x [(1 – PM control efficiency at EP04)/ PM control efficiency at EP04] + lbs of blasting material used at EP05 & EP24 x (1 – PM control efficiency at EP05 & EP24) + lbs of welding wire used x PM emission factor for welding x (1 – PM control efficiency at EP06) + gallons of diesel used in engine testing x PM emission factor for engine + ft^3 of natural gas burned by the permittee x natural gas PM emission factor + lbs of solids used in painting at EP09 x transfer inefficiency at EP09 x (1 – PM control efficiency at EP09) + lbs of solids used during rod coating spray x transfer inefficiency for rod coating x (1 – PM control efficiency at EP19) + lbs of solids used during head coating spray x transfer inefficiency for head coating x (1 – PM control efficiency at EP19) + lbs of solids used in painting at EP20 x transfer inefficiency at EP20 x (1 – PM control efficiency at EP20) + …

(continued on next page)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

(previous page) … + lbs of solids used in painting at EP21 x transfer inefficiency at EP21 x (1 – PM control efficiency at EP21) + lbs of solids used in painting at EP25 x transfer inefficiency at EP25 x (1 – PM control efficiency at EP25) – lbs of waste paint recovered for off-site energy recovery x (nonvolatile % of waste/100) / (lbs of solids used in painting at EP01 + lbs of solids used in painting at EP09 + lbs of solids used in painting at EP20 + lbs of solids used in painting at EP21 + lbs of solids used in painting at EP25) x [lbs of solids used in painting at EP01 x transfer inefficiency at EP01 x (1 – PM control efficiency at EP01) + lbs of solids used in painting at EP09 x transfer inefficiency at EP09 x (1 – PM control efficiency at EP09) + lbs of solids used in painting at EP20 x transfer inefficiency at EP20 x (1 – PM control efficiency at EP20) + lbs of solids used in painting at EP21 x transfer inefficiency at EP21 x (1 – PM control efficiency at EP21) + lbs of solids used in painting at EP25 x transfer inefficiency at EP25 x (1 – PM control efficiency at EP25)] + S [any other PM emissions except those exempted under 401 KAR 50:035]

All emission factors and control efficiencies may be tested (in accordance with Division for Air Quality policy) to obtain values. Absent test results, the following shall be used unless a modification is made.

Transfer inefficiency at EP01	=	0.60 lbs of PM/lb of solids in paint used
PM control efficiency at EP01	=	0.98 lbs of PM captured/lb of PM used
Transfer inefficiency for painting from spray cans	=	0.75 lbs of PM/lb of solids in paint used
PM control efficiency for spray can painting	=	varies from 0.75 for painting outside of a booth to the control efficiencies for the booths
Lbs of waste captured at EP03 by the control device	=	weight of waste container after removing materials captured by each control device from the Vacublast units (in lbs) – weight of the waste container before the Vacublast units have waste material removed (in lbs)
Inside building gravity settling	=	assumed to be 0.5 unless tested
[(1 - PM control efficiency at EP03)/ PM control efficiency at EP03]	=	lbs of waste not captured/ lbs of waste captured by the control device
PM control efficiency at EP03	=	0.99 lbs of PM captured/lb of PM used
Lbs of waste captured at EP04 by the control device	=	weight of waste container after removing materials captured by the control device from the Rotoblaster unit (in lbs) – weight of the waste container before the Rotoblaster unit has waste material removed (in lbs)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

[(1 - PM control efficiency at EP04)/ PM control efficiency at EP04]= lbs of waste not captured/ lbs of waste captured by the control device

PM control efficiency at EP04	=	0.999 lbs of PM captured/lb of PM used
PM control efficiency at EP05 & EP24	=	0.9995 lbs of PM captured/lb of PM used
PM emission factor for welding from AP-42	=	38.4 lbs of PM/1000 lbs of wire used
PM control efficiency at EP 06	=	0.75 lbs of PM captured/lb of PM generated
PM emission factor for engine from Procedures for Emission Inventory Preparation – Vol. IV: Mobile Sources	=	0.016 lbs of PM/gal of diesel
Natural gas PM emission factor from AP-42	=	7.6 lbs of PM/10^6 ft^3 of natural gas fired
Transfer inefficiency at EP09	=	0.35 lbs of PM/lb of solids in paint used
PM control efficiency at EP09	=	0.999 lbs of PM captured/lb of PM used
Transfer inefficiency for rod coating	=	0.75 lbs of PM/lb of solids in rod coating sprayed
Transfer inefficiency for head coating	=	0.75 lbs of PM/lb of solids in head coating sprayed
PM control efficiency at EP19	=	0.98 lbs of PM captured/lb of PM used
Transfer inefficiency at EP20	=	0.35 lbs of PM/lb of solids in paint used
PM control efficiency at EP20	=	0.97 lbs of PM captured/lb of PM used
Transfer inefficiency at EP21	=	0.35 lbs of PM/lb of solids in paint used
PM control efficiency at EP21	=	0.959 lbs of PM captured/lb of PM used
Transfer inefficiency at EP25	=	0.50 lbs of PM/lb of solids in paint used
PM control efficiency at EP25	=	0.99 lbs of PM captured/lb of PM used
Nonvolatile % of waste	=	100 – Volatile % of waste (determined using Method 24 from 40 CFR 60) or 0.0 (absent testing)

For **VOC**

VOC emitted (lbs) = S [spray coating VOC] – S [any spray coating VOC verifiably recovered]
+ S [natural gas combustion VOC] + S [degreaser VOC] + S [EP17 VOC]
+ S [testing of locomotive engines VOC] + S [tank VOC]
+ S [any other VOC emissions except those exempted under 401 KAR 50:035]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

Substitution into the VOC equation will result in the following equation.

VOC emitted (lbs) = VOC present in spray coatings used
x (1 – VOC control efficiency applied to the coatings)
– lbs of waste coating recovered for off-site energy recovery
x [(volatile % of waste – water % of waste)/100]
+ ft^3 of natural gas burned by the permittee x natural gas VOC emission factor
+ VOC present in solvents used for degreasing
+ gallons of PDG 600 Dap Polyester Resin (or equivalent) used at EP17
x VOC emission factor for the resin + VOC present in each other product used at EP17
+ gallons of diesel used in engine testing x VOC emission factor for engine
+ gallons of gas stored x tank loss factor for gas + gallons of kerosene stored
x tank loss factor for kerosene + gallons of diesel stored x tank loss factor for diesel
+ gallons of waste and unused oil stored x tank loss factor for oil
+ S [any other VOC emissions except those exempted under 401 KAR 50:035]

All emission factors and control efficiencies may be tested (in accordance with Division for Air Quality policy) to obtain values. Absent test results, the following shall be used unless a modification is made.

VOC control efficiency for spray coating	=	0.00 lbs of VOC removed/lb of VOC used
Volatile % of waste	=	Determined using Method 24 from 40 CFR 60 or 0.0 (absent testing)
Water % of waste	=	Determined using Method 24 from 40 CFR 60 or 0.0 (absent testing)
Natural gas VOC emission factor from AP-42	=	5.5 lbs of VOC/10^6 ft^3 of natural gas fired
VOC emission factor for PDG 600 Dap Polyester Resin	=	0.9 lbs of VOC/gal of resin used
VOC emission factor for engine from Procedures for Emission Inventory Preparation – Vol. IV: Mobile Sources	=	0.0525 lbs of VOC/gal of diesel
Gasoline tank loss factor resulting from analysis in TANKS 3.1	=	23.59 lbs of VOC/1000 gal of gasoline stored
Kerosene tank loss factor resulting from analysis in TANKS 3.1	=	0.12 lbs of VOC/1000 gal of kerosene stored
Diesel tank loss factor resulting from analysis in TANKS 3.1	=	0.034 lbs of VOC/1000 gal of diesel stored
Oil tank loss factor resulting from analysis in TANKS 3.1	=	0.0003 lbs of VOC/1000 gal of oil stored

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

For **individual HAPs**

Individual HAP emitted (lbs) = S [emission of an individual HAP from spray can painting]
+ S [emission of an individual HAP from rod or head spraying]
+ S [emission of an individual HAP from all other painting (not considering recovery)]
– S [individual HAP verifiably recovered from painting]
+ S [emission of an individual HAP from welding]
+ S [emission of an individual HAP from testing of locomotive engines]
+ S [emission of an individual HAP from EP17]
+ S [any other emissions of an individual HAP except those exempted under 401 KAR 50:035]

Substitution into this equation will result in many equations (which are not provided). Individual HAP equation substitutions will be similar to other substitutions provided above. By making appropriate substitutions into each individual HAP equation, emission quantities for each HAP can be determined. The following pages contain a list of HAPs which are found in 401 KAR 63:060. Refer to the Federal Register for changes to the list of HAPs.

Following the HAPs list are some acceptable equation substitutions (based upon Division for Air Quality review). Other emission factors and control efficiencies (including values obtained from testing in accordance with Division for Air Quality policy) must be submitted to the Division for Air Quality (and receive approval) before use in demonstrating compliance.

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine

CAS number	Chemical name
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chlordamben
57749	Chlordane
7782505	Chlorine

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

CAS number	Chemical name
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-epoxybutane
140885	Ethyl acrylate

CAS number	Chemical name
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

CAS number	Chemical name
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Arochlors)
1120714	1,3-Propane sultone
57578	Beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)

CAS number	Chemical name
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
0	Antimony Compounds
0	Arsenic Compounds (inorganic including arsine)
0	Beryllium Compounds
0	Cadmium Compounds
0	Chromium Compounds
0	Cobalt Compounds
0	Coke Oven Emissions
0	Cyanide Compounds
0	Glycol ethers
0	Lead Compounds
0	Manganese Compounds
0	Mercury Compounds
0	Fine mineral fibers
0	Nickel Compounds
0	Polycyclic Organic Matter
0	Radionuclides (including radon)
0	Selenium Compounds

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Emission Limitations (Continued):

Compliance Demonstration Method (Continued):

Note: The EPA publication 745-R-95-006, Toxics Release Inventory, List of Toxic Chemicals within the Glycol Ether Category, contains a list of glycol ethers. A copy of this document can be viewed or downloaded from the Internet at www.epa.gov/ttnuatw1/glycol.pdf.

Assumed HAP emission factor from spraying (not considering recovery)	=	1.0 lbs of each individual HAP/lb of each individual HAP
Welding **Manganese** emission factor from AP-42[A]	=	1.03 lbs of manganese/1000 lbs of wire used
Welding **Nickel** emission factor from AP-42[A]	=	0.005 lbs of nickel/1000 lbs of wire used
Welding **Chromium** emission factor from AP-42[A]	=	0.006 lbs of chromium/1000 lbs of wire used
Welding **Cobalt** emission factor from AP-42[A]	=	0.001 lbs of cobalt/1000 lbs of wire used
HAP control efficiency at EP 06	=	0.75 lbs of HAP captured/lb of HAP generated
Natural gas combustion **Formaldehyde** emission factor from AP-42	=	0.075 lbs of formaldehyde/10^6 ft^3 of natural gas fired
Natural gas combustion **Hexane** emission factor from AP-42	=	1.8 lbs of hexane/10^6 ft^3 of natural gas fired
Formaldehyde emission factor for engine testing converted from Locating and Estimating Air Emissions from Sources of Formaldehyde (Revised)	=	0.0182 lbs of formaldehyde/gal of diesel
Painting Individual HAP recovery	=	lbs of paint waste x [(volatile % of waste – water % of waste)/100)] x individual HAP content of volatile
Volatile % of waste	=	Determined using Method 24 from 40 CFR 60
Water % of waste	=	Determined using Method 24 from 40 CFR 60
Individual HAP content of volatile	=	Determined using Method 8260 from SW-846 or 0.0 (absent testing)

[A] More detailed recordkeeping is required to use other AP-42 emission factors.

For **combined HAPs**

Combined HAPs emitted (lbs) = Σ [individual HAPs]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Operating Limitations:

The following are required to make the above emission limits enforceable as a practical matter and compliance with these limits demonstrates compliance with the Emission Limitations in this Section.

Plantwide NO_x conditional major and synthetic minor limitation

1. Ft^3 of natural gas burned by the permittee x 0.0001 (lbs/ft^3) + gallons of diesel used in 645 blower engine testing x 645 blower engine NO_x emission factor + gallons of diesel used in 645 turbo engine testing x 645 turbo engine NO_x emission factor + gallons of diesel used in 710 turbo engine testing x 710 turbo engine NO_x emission factor + S [gallons of diesel used in other engine testing x engine test NO_x emission factors for diesel as described on page 49 x (time at load factor/total time of test)] **shall be < or = to** 194,000 lbs / 52 consecutive week period (demonstrated weekly).

Plantwide CO conditional major limitation

2. Ft^3 of natural gas burned by the permittee x 0.000084 (lbs/ft^3) + gallons of diesel used in engine testing x engine test CO emission factor for diesel **shall be < or = to** 194,000 lbs / 52 consecutive week period (demonstrated weekly).

Plantwide particulate matter conditional major limitation

3. Pounds of PM used at EP01 x 0.012 (lbs/lb) + pounds of PM used during painting from spray cans outside of booths x 0.1875 (lbs/lb) + pounds of waste PM from EP03 x 0.00505 (lbs/lb) + pounds of waste PM from EP04 x 0.0010 (lbs/lb) + pounds of PM used at EP05 & EP24 x 0.0005 (lbs/lb) + pounds of welding wire used x 0.0096 (lbs/lb) + gallons of diesel used in engine testing x PM emission factor for engine + ft^3 of natural gas burned by the permittee x 0.0000076 (lbs/ft^3) + pounds of PM used at EP09 x 0.00035 (lbs/lb) + pounds of PM used to spray rods or heads x 0.015 (lbs/lb) + pounds of PM used at EP20 x 0.0105 (lbs/lb) + pounds of PM used at EP21 x 0.0144 (lbs/lb) + pounds of PM used at EP25 x 0.005 (lbs/lb) – pounds of paint recovered for disposal x (non-volatile % of waste/100) / (pounds of PM used at EP01 + pounds of PM used at EP09 + pounds of PM used at EP20 + pounds of PM used at EP21 + pounds of PM used at EP25) x [pounds of PM used at EP01 x 0.012 (lbs/lb) + pounds of PM used at EP09 x 0.00035 (lbs/lb) + pounds of PM used at EP20 x 0.0105 (lbs/lb) + pounds of PM used at EP21 x 0.0144 (lbs/lb) + pounds of PM used at EP25 x 0.005 (lbs/lb)] **shall be < or = to** 194,000 lbs / 52 consecutive week period (demonstrated weekly).

Plantwide VOC conditional major and synthetic minor limitation

4. Pounds of VOC used during painting and spraying – pounds of paint recovered for disposal x [(volatile % of waste – water % of waste)/100] + ft^3 of natural gas burned by the permittee x 0.0000055 (lbs/ft^3) + pounds of VOC from solvents used during degreasing + gallons of PDG 600 Dap Polyester Resin x 0.9 (lbs/gal) + pounds of VOC from other materials used at EP17 + gallons of diesel used in engine testing x VOC emission factor for engine + gallons of gasoline stored x 0.0236 (lbs/gal) + gallons of kerosene stored x 0.00012 (lbs/gal) + gallons of diesel stored x $3.4x10^{-5}$ (lbs/gal) + gallons of unused and waste oil stored x $3x10^{-7}$ (lbs/gal) **shall be < or = to** 194,000 lbs / 52 consecutive week period (demonstrated weekly).

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Operating Limitations (Continued):

Plantwide individual hazardous air pollutant (HAP) conditional major limitation

5. Pounds of individual HAP used during painting and spraying – pounds of paint recovered for disposal x [(volatile % of waste – water % of waste)/100] x individual HAP content of volatile + pounds of individual HAP used at EP17 + pounds of welding wire used x 0.25 x individual HAP emission factor (in lbs of HAP generated/lb of wire used) + ft^3 of natural gas burned by the permittee x individual HAP emission factor (in lbs of HAP generated/ ft^3 of natural gas burned) + gallons of diesel used in engine testing x individual HAP emission factor (in lbs of HAP generated/gal of diesel used) **shall be < or = to** 19,400 lbs / 52 consecutive week period (demonstrated weekly). This limit applies to each pollutant listed as a HAP in the Federal Register.

Plantwide combined hazardous air pollutant (HAP) conditional major limitation

6. Pounds of each individual HAP used (as determined in Operating Limitation #5) shall be summed and **shall be < or = to** 48,500 lbs / 52 consecutive week period (demonstrated weekly).

Testing Requirements:

Conditional major and synthetic minor limitations can be demonstrated without testing, however, the following testing will be required to establish the composition of waste paint recovered.

1. Waste recovery used to reduce emissions shall be established using the following methods and procedures. Refer to 40 CFR 60, Appendix A, Method 24 (on pages 200-202 at www.epa.gov/docs/epacfr40/chapt-l.info/subch-C/40P0060/40P060XA.pdf) and SW-846 (at www.epa.gov/epaoswer/hazwaste/test/main.htm) for details of the testing methods.

- **a.** The permittee shall offer the Paducah Regional Office the opportunity to observe sampling (performed by the permittee just prior to shipment of the waste off-site) and the option to collect samples. In the event an unforeseen circumstance delays the waste shipment off-site, no additional waste shall be added to the shipment (the waste shall be shipped as sampled).
- **b.** The permittee shall notify the Paducah Regional Office at least three (3) business days prior to any waste paint sampling and at least ten (10) days prior to the first waste paint sampling done following the issuance date of this permit.
- **c.** The sampling shall be done using a Coliwasa or any devices capable of equivalent sampling (only one design shall be used unless a change is approved by the division).
- **d.** The sample or samples shall be randomly taken from any representative portion of the waste and shall be representative of the entire vertical strata of the waste (as described in Chapter 9 of SW-846).
- **e.** Samples shall be placed into 40 mL VOA vials, labeled, secured so that no one can tamper with the samples, and placed in a cooler with ice for shipment under a chain of custody to a reliable laboratory (as described in SW-846, Chapter 1).

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Testing Requirements (Continued):

1. **f.** The sample(s) shall be tested by Method 24 found in 40 CFR 60, Appendix A, to determine water content (% by mass) and volatile content (% by mass) of the waste.

g. The sample(s) shall be prepared for direct injection by the procedures described in SW-846, Method 3580A.

h. Individual HAP content of the waste shall be determined through application of the procedures described in SW-846, Method 8260.

Conditional major and synthetic minor limitations can be demonstrated without testing, however, the following shall be used to establish acceptable testing procedures for the diesel engine test cells.

2. If the permittee wishes not to use any of the division assumed emission factors for diesel engine testing, the permittee shall perform testing by appropriate methods specified in 401 KAR 50:015 and in accordance with 401 KAR 50:045 and Section VII 2.(1) of the Division for Air Quality's policy manual. Each testing run shall be defined as a complete engine test as described in the permittee's application. Testing high horsepower engines will demonstrate, to the division's satisfaction, maximum emissions from engines with lesser horsepower ratings (bigger engines may require additional tests). Additionally, test results matching recognized literature may (upon division review and approval) indicate other acceptable emission factors for untested groups of engines.

The following shall apply to all testing.

3. If emission factors or control efficiencies are established for an emission point by testing, those emission factors or control efficiencies may be applied retroactively to the date of permit issuance upon a showing by the permittee that the conditions during the test were representative of the conditions in effect for the particular emission point at the time of permit issuance. Test data that has been approved by the division may be used to demonstrate compliance with the terms of this permit or the provisions of underlying applicable requirements, but would not affect past emission fees.

Specific Recordkeeping Requirements:

Conditional major and synthetic minor limitations require the following to be recorded.

1. Gallons of paint used at EP01 each week.

2. Pounds of waste captured at EP03 by the control device each week.

3. Pounds of waste captured at EP04 by the control device each week.

4. Pounds of blasting material used at EP05 & EP24 each week.

5. Pounds of welding wire used each week (specific designations not required unless permittee wishes to use other emission factors than the ones provided in this permit).

6. Gallons of diesel used in each engine test.

7. Specifications of each engine test (% loading during test, amount of time at all loading conditions, engine model tested, etc.).

8. (Condition removed from previous version)

9. Ft^3 of natural gas burned each week (plant wide usage is acceptable).

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Specific Recordkeeping Requirements (Continued):

10. Gallons of paint used at EP09 each week.
11. Gallons of rod coating sprayed each week.
12. Gallons of head coating sprayed each week.
13. Gallons of paint used at EP20 each week.
14. Gallons of paint used at EP21 each week.
15. Gallons of paint used at EP25 each week.
16. Gallons of spray can paint used each week.
17. VOC, HAP, and solids content of each paint, rod coating, or head coating used.
18. Gallons of gasoline filled into storage tanks each week.
19. Gallons of kerosene filled into storage tanks each week.
20. Gallons of diesel filled into storage tanks each week (include recovery from locomotives).
21. Gallons of oil filled into storage tanks each week (include waste recovery).
22. Gallons of PDG 600 Dap Polyester Resin (or equivalent) used at EP17 each week.
23. Gallons of each other product used at EP17 each week.
24. VOC and HAP content of each other material used at EP17.
25. Pounds of paint waste recovered and sent for disposal each week.
26. All composition test results for recovered waste paint.
27. Gallons of each solvent used for degreasing each week.
28. VOC content of each solvent used for degreasing.
29. All other relevant emission test results.
30. Amount of NO_x, CO, PM, VOC, individual HAP, and combined HAP emissions each week.
31. Total NO_x, CO, PM, VOC, individual HAP, and combined HAP emissions for each 52 consecutive week period for which data is available.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Specific Reporting Requirements:

Conditional major and synthetic minor limitations require the following to be reported on a monthly basis. These reports shall be certified by a responsible official, and delivered by electronic media (such as fax or e-mail) or postmarked to the Division's Paducah Regional Office within fifteen days following the end of the month unless the permittee requests and receives written approval from the Paducah Regional Office to alter the timing (delayed reporting should be granted only when extenuating circumstances warrant). These reports may also be delivered by courier as long as the reports are stamped received as indicated above. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

1. Gallons of paint (including thinner) used and recovered shall be reported.

2. Any test results for recovered paint waste shall be reported.

3. Number of engine tests and gallons of diesel used in the tests shall be reported.

4. Any deviations from requirements in this section shall be reported.

5. The amount of NO_x, CO, PM, VOC, individual HAP, and combined HAP emissions for each week in the month shall be reported. The total emission for each pollutant for the most recent 52 week period shall also be reported for each week in the month.

Note: During the first 52 weeks after issuance of this permit, some or all of the previous weekly data for emissions will not be available. During this time period, reports should total available data and note the amount of data not available.

SECTION E - CONTROL EQUIPMENT CONDITIONS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements.
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, purchase records, inventory records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]

3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
   a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b. Have access to and copy, at reasonable times, any records required by the permit:
      i. During normal office hours, and
      ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
   c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency; and
   d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

5. Reports of any monitoring required by this permit shall be reported to the division's Paducah Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 6(1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's Paducah Regional Office concerning startups, shutdowns, or malfunctions as follows:
    1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media such as fax or e-mail) and shall cause written notice upon request.

    b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition 6a. above) to the Division for Air Quality's Paducah Regional Office. Prompt reporting is defined to be within 3 days, for emission exceedances not covered in 6a. above, and with the semiannual report required in 5 above, for all other deviations from permit requirements.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Paducah Regional Office in accordance with the following requirements:
   a. Identification of each term or condition of the permit that is the basis of the certification;
   b. The compliance status regarding each term or condition of the permit;
   c. Whether compliance was continuous or intermittent; and
   d. The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
   e. The certification shall be postmarked or delivered by electronic media (such as fax or e-mail) by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

Division for Air Quality	**Division for Air Quality**
Paducah Regional Office	**Central Files**
4500 Clarks River Road	**803 Schenkel Lane**
Paducah, KY 42003	**Frankfort, KY 40601**

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.

9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of test(s) required by the permit (except recovered waste paint tests) shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) and is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act**)** and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]

8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]

11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]

15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.

16. All previously issued construction and operating permits are hereby null and void.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 50:035, Permits, Section 12]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
For EP04, EP07, EP09, EP20, and EP21

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Paducah Regional Office in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   a. The date when construction commenced.
   b. The date of start-up of the affected facilities listed in this permit.
   c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL CONDITIONS (CONTINUED)

3. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.

4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities by division inspection in accordance with Regulation 401 KAR 50:055, General compliance requirements. Additionally, performance demonstration by testing shall be conducted at such other times as may be required by the cabinet in accordance with Regulations 401 KAR 59:005 Section 2(2) and 401 KAR 50:045 Section 4.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   d. The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:
   a. Submit a Risk Management Plan to U.S.EPA, Region IV with a copy to this Division and comply with the Risk Management Program by June 21, 1999 or a later date specified by the U.S.EPA.
   b. Submit additional relevant information if requested by the Division or the U.S. EPA.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

Prior to the retrofit of the **VMV08** portion of **EP09**, the following applies to **VMV08**.

APPLICABLE REGULATIONS:

Regulation **401 KAR 61:020**, Existing process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 61 of 401 KAR commenced before July 2, 1975.

Operating Limitations:

401 KAR 61:020

The following limits shall apply to assure compliance with Emission Limitations #1 and #2.

1. The water walls shall be maintained and operated in accordance with the manufacturer's recommendations unless otherwise required in this permit.
2. The water walls shall be operated so that a sheet of water covers the collection walls (as designed to be operated).

Note: A significant amount of water falling as drops is an indication that the wall is not being covered with water and that the control device is not operating properly.

3. Painting emissions shall not bypass the control device.
4. All booth doors shall be closed while painting except to allow for momentary entry and exit requirements of personnel.
5. The average pounds of solids used in painting at VMV08 shall not exceed 1750 lbs/day during any week.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Emission Limitations:

401 KAR 61:020

1. Section 3(1) limits visible emissions from VMV08 to less than 40% opacity.
2. Section 3(2) limits emissions of particulate matter from VMV08 to a maximum of 2.58 lbs/hr.

Compliance Demonstration Method:

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively.

Given the description provided for this emission point, compliance with Operating Limitations #1 - #5 demonstrates compliance with the above emission limitations unless testing is required.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

Testing Requirements:

Testing shall be conducted at such times as may be required by the cabinet in accordance with Regulations 401 KAR 61:005 Section 2(2) and 401 KAR 50:045 Section 4.

Monitoring Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. The water walls and spring loaded plenum vents disconnected from the water wall control device shall be visually inspected at least once every 8 hours (when any painting is done in the booth during the period) to verify compliance with Operating Limitations #2 and #3.

Recordkeeping Requirements:

401 KAR 61:020

The following is required as part of compliance demonstration for Emission Limitations #1 and #2.

1. Observations resulting from Monitoring Requirement #1 shall be recorded in a log and indicate the date and 8 hour period (1st, 2nd, or 3rd shift) of the observations.
2. All maintenance and corrective actions taken to comply with Operating Limitations #1-#4 shall be recorded.
3. All deviations from Operating Limitations #1 - #5 shall be recorded.
4. Weekly paint usage shall be recorded (also required as part of Section D).
5. The average daily pounds of solids used shall be calculated and recorded weekly.
6. All relevant compliance testing results shall be recorded and maintained by the permittee.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

Reporting Requirements:

As part of compliance demonstration for Emission Limitations #1 and #2, reporting requirement 5 in Section F shall be modified to require only any relevant compliance testing results, a summary of water wall and plenum vent inspection results, maintenance that affects proper operation, and permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

Conditional Major Limits on VOC, Particulate Matter, and HAPs

See Section D.

SECTION I - COMPLIANCE SCHEDULE

N/A